HIGH-POWER SEMICONDUCTOR LASER

ABSTRACT OF THE DISCLOSURE

A high-power semiconductor laser is mainly a light-emitting semiconductor comprising a waveguide structure. The waveguide structure is provided with a plurality of waveguides capable of transmitting light wave, in which a reflective surface for reflecting light wave is formed on a boundary defined by the waveguide and the light-emitting semiconductor unit. A cleaved facet of the light-emitting semiconductor unit has a plurality of interfaces, which are formed by extending the waveguide to reach the cleaved facet of the light-emitting semiconductor unit. The interfaces are provided for either reflecting or transmitting light wave, in which at least a interface would serve for a light-transmitting mechanism. The output power of the present invention could be heightened up to 2W with an even intensity distribution for a close field without bringing about any catastrophic optical damage (COD).